

Claims

1. A method for verifying sectors on an optical disc, comprising:
writing user data to unverified sectors of the optical disc;
verifying the unverified sectors of the optical disc by reading the user data on the
5 unverified sectors of the optical disc; and

comparing the user data read from the unverified sectors of the optical disc with
user data stored on a system buffer to determine whether any one of the unverified
sectors having user data is defective, the verifying of the unverified sectors establishing
verified sectors having user data.

2. A method for verifying sectors on an optical disc as recited in claim 1,
further comprising:

verifying a file system area on the optical disc; and

15 writing a file system to the file system area, wherein the file system is a data
structure for locations of the user data on the optical disc.

3. A method for verifying sectors on an optical disc as recited in claim 1,
further comprising:

verifying a bitmap area on the optical disc; and

20 writing a bitmap to the bitmap area, wherein the bitmap tracks which sectors of
the optical disc have been verified.

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4. A method for verifying sectors on an optical disc as recited in claim 3,
further comprising:
deleting the bitmap after verification of the optical disc is complete.

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5. A method for verifying sectors on an optical disc as recited in claim 1,
further comprising:

determining if further user data is to be written from the system buffer to the
unverified sectors of the optical disc;

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writing data to the unverified sectors of the optical disc if it is determined that
further user data is not to be written to the unverified sectors of the optical disc, wherein
the data are 0's; and

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verifying the unverified sectors of the optical disc by reading the data written to
the unverified sectors of the optical disc and determining if the data read from the
unverified sectors are 0's.

6. A method for verifying sectors on an optical disc as recited in claim 5,
further comprising:

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writing additional user data from the system buffer to the unverified sectors of
the optical disc after the data has been used to verify the unverified sectors of the optical
disc; and

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verifying the unverified sectors of the optical disc by reading the additional data written to the unverified sectors of the optical disc and comparing the additional data read from the unverified sectors of the optical disc with the additional data stored on the system buffer.

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7. A method for verifying sectors on an optical disc as recited in claim 2, further comprising:

sparing user data contained on a defective sector.

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8. A method for verifying sectors on an optical disc as recited in claim 7, further comprising:

updating the file system after the user data has been moved to a different sector of the optical disc in the sparing operation.

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9. A method for verifying media of an optical disc, comprising:

writing user data from a source to sectors of the optical disc; and

verifying the sectors of the optical disc by comparing the written user data to user data resident on the source to determine whether any one of the sectors is defective.

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10. A method for verifying media of an optical disc as recited in claim 9, further comprising:

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writing a bitmap to the optical disc, the bitmap being used to determine which of the sectors on the optical disc have been verified.

5 11. A method for verifying media of an optical disc as recited in claim 9, further comprising:

writing a file system to the optical disc, wherein the file system contains a data structure for the user data written to the sectors of the optical disc.

10 12. A method for verifying media of an optical disc as recited in claim 9, further comprising:

determining if additional user data is available to verify the sectors of the optical disc; and

15 if no additional user data is available to verify the sectors of the optical disc, writing data to the sectors of the optical disc to verify the sectors of the optical disc, wherein the data are 0's.

20 13. A method for verifying media of an optical disc as recited in claim 12, wherein the data is used to verify the sectors of the optical disc until the additional user data is available to verify the sectors of the optical disc.

14. A method for verifying media of an optical disc as recited in claim 12, wherein the data is used to verify the sectors of the optical disc until all the sectors of the optical disc have been verified.

15. A method for verifying media of an optical disc as recited in claim 10, further comprising:

updating the bitmap after the sectors of the optical disc have been verified.

16. A method for verifying media of an optical disc as recited in claim 15, further comprising:

deleting the bitmap from the optical disc after the optical disc has been verified.

17. A method for optical disc verification, comprising:

writing user data located on a system buffer to sectors of the optical disc; and

verifying the sectors of the optical disc by reading the user data from the sectors on the optical disc and comparing the user data read from the sectors of the optical disc with the user data stored on the system buffer to determine if any of the sectors of the optical disc are defective.

18. A method for optical disc verification as recited in claim 17, further comprising:

writing a file system area to the sectors of the optical disc; and

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Concl. → writing a file system to the file system area of the optical disc, wherein the file system contains a data structure for the user data written to the sectors of the optical disc.

5 19. A method for optical disc verification as recited in claim 17, further comprising:

writing a bitmap that tracks which of the sectors of the optical disc have been verified.

10 20. A method for optical disc verification as recited in claim 19, further comprising:

updating the bitmap as the sectors of the optical are verified.

21. A method for optical disc verification as recited in claim 20, further comprising:

15 deleting the bitmap after the optical disc has been verified.

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